461 regular working days. One man on vacation from regular paid employment worked both days with his wife in his subsistence garden but most relaxed in the village or visited kinsmen.

Table 4

Time patterns (6 weeks)
(Average hours per week)

	Men	Women	Both sexes
Traditional activities*			
Gardening	13.50	15.19	14.35
Hunting, fishing	1.29	1.19	1.24
Building	2.73	0.39	1.56
	17.53	16.77	17.15
Income-earning activities			
Paid work	2.60	-	1.30
Cash crops	0.79	0.31	0.55
	3.39	0.31	1.85
Non-economic activities**			
Sick	4.94	3.81	4.38
Travel	4.14	2.51	3.33
Religion	0.96	3.97	2.46
Council	0.41	1.44	0.92
	10.45	11.72	11.09
TOTAL	31.37	28.80	30.09

*Excluding domestic activities.
**For comparative purposes, we have recorded days taken up by non-productive activities, such as travel (including visiting and absence for reasons of other social obligations) as 7 hours, the standard used by Crocombe and Hogbin at Inonda (1963:62).

527 574 484 A tendency for men to regard the season as a time for renewing social contacts became more apparent in the week of the New Year. Although New Year's day was not specifically observed, the men who were well enough spent at least 1 day of the week visiting kin in other villages. Women too spent more time than usual away from the village but by New Year they were also resuming the routine of subsistence gardening. A general increase in movement between villages in the area appears to be usual at this time of the year. [438] Several villagers used to visit Kokoda at the New Year to trade traditional valuables with members of other tribes.

245 [442] Coffee must be carried to Awala for sale, about one hour's walk away. Since assistance is often required, marketing becomes a significant component of the total time devoted to coffee production. It is complicated by delays over the arrival of the buying vehicle at Awala, shortage of cash to make immediate payments, and inadequate transport capacity; growers are periodically involved in [484] two or three journeys for the sale of a single load of coffee. Outside the buying season no attention is given to the gardens nor are any ripe berries harvested.

249 While in theory rubber trees undergo a 'wintering' period of about three months (August to October), the communal planting is tapped on a rotational basis throughout the year by seven villagers, including three members of the sample. Table 6:4 shows a peak in activity during period III but this probably reflects the tapping order rather than other considerations and in fact two of the sample households tapped during this period. It cannot be considered as a diversion of activity from coffee to rubber since the two households in question did not exploit any coffee during the year. Marketing of rubber is less time-consuming than coffee as the factory at Awala accepts coagulum at all times.

461 During period I an additional 1.0 hour per man-week was devoted to the communal cash crop garden venture, of which 0.8 hours involved removing regrowth which had occupied the area following initial clearance in 1963.[1] In the balance of the time a few cocoa and rubber seedlings were planted and weeded.

Twenty-four of a possible 32 adults participated in the communal garden, although 68 per cent of the total time expended was provided by 11 individuals from four households. The scheme was characterised by intensive activity during week 1, when 7.3 hours per man-week were expended, falling off rapidly to complete cessation within eight weeks.[2]

464 (ii) Paid work. If the abortive communal venture is disregarded, the village residents devote as much time to paid work as to cash cropping. However, only five individuals were involved in such work, three men erecting buildings under contract to the hospital at Saiho and two young people doing medical work at Sasembata mission clinic.

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[1] This venture thus largely accounts for the increased time spent in clearing during period I. See p.81.

[2] The initial display of enthusiasm may have been influenced by the recency of the researcher's arrival in the village, when the exact nature of his relationship with the other external agencies had not yet been determined.

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(ii) The daily routine and duration of activities. As suggested above, both the duration of an individual activity and the time at which it occurs within a given day may have some bearing on the broader patterns of activity. Williams (1930:21-31) describes an individual as characteristically undertaking several tasks within a single day, garden work normally being completed by midday. Table 6:10 reveals the need for modifying this view. The mid-point of most activities falls within the 1100 to 1400 period, and of the 19 extra-village subsistence tasks 15 have a mid-point falling after 1200. The tendency is to leave for the gardens in early or mid-morning, returning to the village in mid-afternoon. In garden work several tasks are normally carried out during a single visit, food being harvested last.

Of the 13 activities with a mean duration exceeding 5.0 hours only 4 - clearing, planting yams, sago-making and mourning - are associated with the subsistence sector. Of the others, 6 concern the marketing of crops, both subsistence and cash, and 1 is paid work. The subsistence tasks occur infrequently while the cash-producing ones are a regular feature of a commercial economy. While the total time devoted to cash-producing activities in Sivepa is small, it would appear disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks of short duration. Significantly, in terms of total time expended, the two most burdensome cash cropping tasks are processing coffee and harvesting rubber. The mid-point of both these occurs early in the morning (0941 and 0838 respectively) and since the activities are of short duration the intention is apparently to complete them before starting the daily subsistence routine.

While the time devoted to cash-producing activities, both in total and proportionately, is slight, the characteristics of their occurrence and duration suggest that areas of potential or actual 'stress' may already exist in terms of the juxtaposition of subsistence and external sectors at this basic level of work organisation.

The allocation of time within individual activities

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[48]
[482]

In a community practising shifting cultivation, where all movement is by foot and all goods are carried on the back, travelling comprises a major component of activity time, therefore significantly affecting the level of productivity. This fact is clearly recognised by the Orokaiva and partially explains village movements. With increasing commercialisation of the economy, the problem of the journey to work becomes more serious on account of the greater volume of goods being handled and increased level of activity.

[491]
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One of the stated aims behind Sivepa's projected move was to be sited on an improved road being built to Sasembata in order that

[TEXT CONTINUED ON PAGE 109]

484 produce could be sold directly to buyers at the village.[1] Nothing
[491] in Table 6:11 suggests that this move is related to the changing
[361] location of gardening activities since the percentage time spent on travelling in connection with clearing activities is actually less than that in connection with subsistence gardening.

Table 6:11

Sivara: time spent on travelling as a percentage of total time spent on grouped activities

	Percentage of total time	Hours per man-week
Clearing	10.5	0.4
Subsistence gardening	18.6	2.5
Other subsistence food production	14.0	0.4
Other subsistence activities	10.1	0.2
Cash cropping	8.3	0.1
Paid work	15.0	0.2
Household	4.4	0.2
Social obligations	36.7	1.2
Sickness	23.9	0.2
External agencies	22.1	1.3
Other	40.7	0.3
Total	18.2	7.4
Corrected total*	15.0	6.1

* Accounting for several activities being undertaken in the course of a single return journey, and for journeys modified by travel in the researcher's vehicle.

361 In the one case of land tenure conversion among the Orokaiva for which information is available, it is interesting to note that the main benefit of conversion, as seen by the participants, lies in the

> consolidation of previously scattered holdings.... Under the traditional system a man may have had rights to several separate pieces of land often considerable distance from each other. As a result much time was spent in walking from

[361] [824] [825]

[1] Other reasons given for the move included, firstly, that the new village would be an amalgamation of four existing ones and this enlarged size would permit the construction of 'better' houses and facilities, and, secondly, the village itself would be a better place because bananas, coconuts, dogs and pigs (all of which are 'no good') would not be permitted in it.

8: Waddell & Krinks E-4,5 (1964-1965) 1968 QJ23 Orokaiva QJ23

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village to food gardens and to cash crops. An individual had only a small amount of land on each plot, preventing large-scale planting in one area. Since conversion each man's scattered holdings have been brought together into one large easily accessible block. (Horawets 1967:18)

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In Sivepa, travelling to and from the point of work accounts for 18.2 per cent of activity time.[1] Household tasks, being mostly sedentary, involve little travelling. These apart, the lowest proportion of time consumed in travelling is for cash cropping - only 8.3 per cent. Since coffee and rubber are permanent tree crops every effort is made to establish such holdings close to the village, and extensive planting may result in the stabilisation of settlement. However, because the cultivation system associated with subsistence crops is entirely different from that associated with the cash crops, any periodic need to relocate the village in relation to areas currently being exploited for food gardens can easily negate initial economies relating to the journey to work. Rimoldi (1966:41) states:

> In about 30 years preceding the establishment of their present village the groups now represented in Sivepa had between them been involved in shifts of residence between a series of 14 village sites within an area of about 2 square miles adjoining the Sohu River. Informants claimed that they or their ancestors moved from 11 of these under instructions from government officers to amalgamate into larger units.

Whatever the real reasons for such moves, the effect on cash crop holdings is clear. The proposed move of Sivepa to a new site will double, at least, the time spent in travelling to these gardens.

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Even other subsistence activities, which are essentially village based, require 10.1 per cent of total time in travelling to and gathering the raw materials. However, miscellaneous activities apart, social obligations involve the highest proportion of time being spent in travelling - 36.7 per cent. The wide scattering of clans into a number of branches and the pattern of patrivirilocal residence largely account for the distances travelled in connection with social activities, although the scale of movement has undoubtedly increased following contact through kinsmen employed by the external agencies active in the District and others with settlement blocks at

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[1] While the corrected figure of 15 per cent shown in Table 6:11 reflects the actual time spent travelling during the course of the survey, 18.2 per cent is a more normal figure on account of the journeys made in the researcher's vehicle during the survey. The high figure of 40.7 per cent for other activities largely reflects missions undertaken specifically at the researcher's request, but in terms of actual time these are of little significance.

484 Sengara. Finally, movement directly related to the external agencies and sickness is proportionately greater than for all other activities apart from the two exceptions noted. In general, travelling times appear to reflect a significant expansion in the village <u>ecumene</u> following contact. Further, in those activities specifically related to this expansion there is a lower level of efficiency in so far as travelling is concerned, since there has been no parallel development in the modes of travel.

461 Detailed time and motion studies of a limited number of activities were conducted in order to acquire a better understanding of the utilisation of activity time in areas other than travelling and of the level of productivity within the framework of the existing economic system and technology. A total of 28 man-instances were surveyed, the activities comprising clearing, several subsistence gardening tasks, sago-making, house construction and coffee harvesting. The results are presented in Table 6:12. The main feature they demonstrate is that the various productive tasks (Main, Ancillary and Other) carried out within the duration of a single activity amount to only 49.3 per cent of the total time devoted to that activity; and 27.4 per cent of the total time is accounted for by resting and eating meals. The time spent in resting increases with the intensity of effort and exceeds 30 per cent in sago-making, productive effort being proportionately reduced. However, in this case the increased leisure time is compensated for by a large work group so that it is possible to maintain a high rate of sago production.

[462] While acknowledging the small number of observations, tentative patterns may be discerned within the sample according to sex, age and cash cropping status. Men concentrate more on the main task than women, as the latter also are responsible for preparing any food during the course of the work, washing the children and doing such minor tasks as foraging for greens; the 25 to 34 years age group allocates its time in a more productive manner than any of the others, spending 56.3 per cent on the main task and only 16.1 per cent on resting and meals; while cash croppers appear to use their activity time more productively than non-cash croppers. The cash croppers spend 64.9 per cent of activity time on the various productive tasks and only 17 per cent in leisure compared with 36.3 per cent and 36 per cent respectively for non-cash croppers. This clear distinction is in part a function of the frequency of sago-making by non-cash croppers, but if this activity is excluded the figures for cash croppers become 64.2 per cent and 15.5 per cent respectively, and for non-cash croppers 47.3 per cent and 23.9 per cent respectively; thus the distinction, if somewhat modified, persists. Furthermore, it must be recognised that some cash croppers at least, with their higher cash incomes, have less need to make sago during the dry season since they can supplement their diet with storebought foods.

Chapter 7

Activity patterns: Inonda

Introduction

484 [12C] Records were kept of the daily activities of the 19 permanent adult residents of Inonda and of 2 young people (one aged 15 and the other 16) who spent periods of a few weeks in the village helping kinsmen. These 21 people were regarded as residents for a total of 3,230 man-days. Temporary absences of more than 24 hours duration amounted to 560 man-days and so the number of man-days considered below amounts to 2,670. Table 7:1 shows the number of man-days absent in each recording period and in total.

464 164 The number of effective working days in the village is further reduced by sickness. When suffering from major illnesses such as malaria and influenza, people generally stay in bed at home or at the aid post. Comparatively minor ailments such as skin infections, tropical ulcers and cuts are usually dealt with by brief visits to the aid post, mostly early in the morning before work. Such visits occupied almost 600 man-hours over the survey.

Table 7:2 shows the incidence of sickness when people were inactive in the village. Periods of sickness spent at the aid post or hospital are included under 'Absences' in Table 7:1.

164 484 Figure 7:1 illustrates the weekly incidence of man-days occupied by sickness while in the village and by absence. There are wide fluctuations in the incidence of both, but particularly the latter, which ranges from zero to 46 man-days. The peaks of absences occur mainly with feasts in distant villages and when several villagers are sick at the same time and stay at the aid post or with relatives. Sickness tends to be most common during the wet season (periods I and III).

During the 2,670 man-days resident in the village, the activities carried out by the sample occupied 16,620 hours or 6.2 hours per person per day.

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Table 7:1

Inonda: days absent from village, by cause

		Garden work	Fishing	Sick and care of sick	External agencies	Visits	Other social	Other	Total days absent	Total days present
Period I										
	Days	20	26	13	1	139	52	9	260	1,252
	Per cent	8	10	5	-	54	20	3	100	
Period II										
	Days	-	-	38	43	60	4	-	145	593
	Per cent	-	-	26	30	41	3	-	100	
Period III										
	Days	-	16	52	40	29	14	4	155	825
	Per cent	-	10	34	26	19	8	3	100	
Total										
	Days	20	42	103	84	228	70	13	560	2,670
	Per cent	4	8	18	15	41	12	2	100	
Percentage of all days present and absent		1	1	3	3	7	2	-	17	83

S: Waddell & Krinks E-4,5 (1964-1965) 1966 OJ23 Orokaiva OJ23

partially counteracts the effect of the reduced travelling time. However, all of the most distant gardens were fully harvested by the time the village move was completed.

Other subsistence activities also show a significantly lower proportion of time spent in travelling from the new site compared with the old: this is because almost all construction, including the copra-drier as well as houses, took place at the new village. Some people reduced their travelling times at an early stage by erecting temporary shelters on the new site to live in while building their homes. By the time of period III, the other subsistence activities were restricted to those pursued in the village, such as making mats or string bags. The reduced time spent walking from the new site to work on cash crops results from a concentration on [illegible]s production within or adjacent to the new village at the expense of work in the more distant coffee gardens. The established coffee gardens are about twenty minutes' walk from the old site but forty minutes from the new village and the distance involved resulted in a decision to establish new coffee gardens nearer the new village. As described,[1] the first choice was land about twenty-five minutes' walk away, but eventually all but two men decided to utilise the food gardens only five minutes from the village. The other two planted coffee near the Sambogo river where there is plentiful water for pulping and washing the cherries.

The apparent reduction in travelling times for household chores is illusory. The observers were able to cover activities such as cooking far more completely at the new site; the distance to the nearest water supply was not diminished by the move. The distance to the aid post where the infant welfare clinic is held was, however, considerably reduced.

Three categories of activity show an increase in time spent travelling. This reflects more frequent journeys after the move to places further afield, such as Popondetta, Saiho and Kendata, but this increased frequency was not a function of the move itself. During period I, when most people were still resident in the old village, most of the social occasions took place there or in nearby villages whereas, later in the year, feasts were attended in more distant places.

The performance of individual tasks

On a number of occasions, detailed observations were made of the time involved in carrying out various tasks and the results are shown in Table 7:14. Each activity has been divided into different phases: travelling, resting and eating, performance of the main task,

[1] See p.59.

[TEXT CONTINUED ON PAGE 157]

Work on this scheme had not progressed far at the time of observation because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

As with the Yega Scheme, the advice and help of Agricultural Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

The people concerned in the scheme lived in various places. Most lived in the Konje area, one at Mamburada, one at Gatara, while eight lived in Beporo and one further away at Goube. However, it was likely that the Beporo and Goube people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

The clearing of rain forest for planting blocks with permanent tree crops whose produce was to be sold for cash was a radical departure from traditional Yega land usage. The Yega Scheme incorporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

(i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

(iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

(continued)
planted, in one case the wife was, in one case the father's sister's husband, in another the half-brother by a different father and in the last case, the father of a half-brother.

grown. These were mainly used as food by the co-operative workers, but in times of local food shortage they were sold to other villagers. All workers, Yega, Ahora and Beuru, lived in garden houses on the Ononda garden site during the week and returned to their home villages only at week-ends.

The establishment of gardens and the work organization were similar at Garara. There also, peanuts and sweet potatoes were the main crops. According to an informant the value of the first harvest in 1947 was $190.

Unfortunately for the co-operatives, the mission organisers soon disagreed with Samuel, for the Rev. Benson's diary on 1 April 1947 speaks of him as a 'wife-deserter, and who in consequence has been put off the committee of the G.P.T.' (and presumably placed under Church discipline). It was also stated by informants that there was dissatisfaction among shareholders with Samuel's rather secretive management of the money.

At this point the G.P.T. ceased to function and the co-operative efforts of the Yega proceeded in different directions. The Anglican Mission sponsored a Christian co-operative which became known as the Gona Co-operative Society, while Samuel Ungega organized the Gombe Co-operative. He was supported by most members of his own clan (Kurou), some members of his new wife's clan (Jambapa), a few members of other Yega clans (Seseko and Konambo) and also by five members of the neighbouring Bapa sub-tribe. Four of the Bapa men were married to women of Kurou Dunemba sub-clan which joined the Bapa people in past times but with whom Yega Kurou still maintained exogamous relations. The fifth man was a brother of one of these four, having no direct affinal link with Samuel or other members of Kurou clan.

Early in 1948 the foremen in charge at Ononda was sent by the mission authorities to Boroo to instruct people in co-operative techniques. At about the same time the Ahora and Beuru labourers were forced by the Administration to return to their villages because of labour problems at home. Samuel's Gombe Co-operative then abandoned farming at Ononda and restricted its operations to the Garara site, where all land rights were held by members of the Jambapa clan, the clan of Samuel's wife.

All members of the Gombe Co-operative workforce, including the Bapa men, lived in garden houses on the Garara site from Monday to Friday each week. The Jabapa landholders permitted the members of other clans and the Bapa men to use nearby secondary forest for their food gardens. This saved travelling time and permitted the maximum time to be spent on the co-operative gardens.

The Gombe Co-operative continued operations during 1948-9 but because of opposition from the mission it never gained popular

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit relatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

125 The sample is necessarily small, and not representative, as there were at the time only three Orokaiva entrepreneurs who had established enterprises of any size without government help. The fourth entrepreneur differs from the others in that he established himself only after obtaining a resettlement block and a government loan.

492 The first indigenous entrepreneur known to engage full time in cash-cropping and trading in the Orokaiva area was Raymond Ogerem who was not himself an Orokaiva man. He was born about 1910 in Beko village near Tarakwaruru (on the coast between Samarai and Cape Killerton) where his father was leader of Kwamasia clan. After only a few months schooling he went to work in Bunting and Company's trade store at Samarai and later at Tufi, Buna and Misima Island; about 1939 he took over a store at Esahambo, about ten miles from Popondetta. Adjacent to the store he acquired a lease of 100 acres of land from the government. Using hired labour he planted eight acres of coffee and about 200 rubber trees before the Japanese invasion in 1942. Though Raymond returned to Esahambo [443] after the invasion was repulsed, he did not remain long before returning to Tarakwaruru where about 1952 he was instrumental in starting a community trade store. He has not returned to the Orokaiva area since then. Raymond is still remembered by almost all the older Orokaiva men, and is described by them as a generous man who they admired for his ability to run a business which up to that time they had thought was the exclusive prerogative of Europeans.

Personal experience of the entrepreneurs

The entrepreneurs A, B and C were eldest sons (and the fathers of at least two were also eldest children). This may be significant as these three have been assisted in the development of their cash crop enterprises by younger brothers who do not require immediate cash payment. The fourth (D) was a youngest son but he did not undertake cash-cropping until he received a government loan.

The two older entrepreneurs, A and B, had no schooling, the younger two had limited elementary schooling. Formal education is [811] largely a function of age for schools have spread only slowly throughout the countryside. It is relevant that all four come from the less populous coastal area where contact has been longest, and none from the more populous inland.

[484] All four entrepreneurs have travelled much more widely than the average person of the district and since adolescence they have all lived mostly outside their village communities.[1] On their return

[1] They have all worked in other districts of Papua-New Guinea, while D has travelled to Australia, and in 1953 attended the coronation of Queen Elizabeth II in London.

informal 'company' was formed to operate the enterprise. There were sixteen shareholders, all residents of A's hamlet or the absent sons of residents. A contributed $144 in cash while the others contributed $10 each. This money is used as working capital and placed in a Cocoa Account at the savings bank. It is controlled by A's eldest son, who is referred to as chairman of the company and is generally responsible for the handling and marketing of produce.

Wet cocoa beans were bought from villagers from moneys in the Cocoa Account at 3 cents per pound and fermented and dried. They were shipped through a local trading firm and sold on the London market. The fermentary has not been very successful because most villagers outside A's hamlet sold to a European fermentary which collected the beans and paid a higher price. Another, and perhaps more important, reason that the local fermentary was not patronised lay in tensions and divided loyalties within the neighbouring villages. From early 1962 until May 1963 only 7,080 pounds of wet cocoa beans were processed using the temporary fermentary. No later figures are available but the credit balance in the Cocoa Account rose from $174.07 in June 1963 to $470 in January 1966.

All four entrepreneurs aspire to owning a motor vehicle. A's early attempts were declined by officials,[1] and his attempt to establish a bus service in 1963 (for which he had sufficient finance) was thwarted when the only licence was granted to an expatriate. He still gives top priority to buying a vehicle for his own cartage and for hire. B had the funds but not the driving skill.

The difficulty of acquiring a skill such as driving is often overlooked. For a person in a rural area it is usually necessary to go to a town and get a job. Even then one may spend several years in an unskilled job without getting the opportunity to learn to drive. Few Papuans have vehicles and most people are naturally reluctant to allow others to practise on their vehicles. B's son has now tried unsuccessfully for three years to find an opportunity to learn to drive. C and D have each been seeking a cheap second-hand vehicle for some time, but the likelihood of establishing a successful carrying business is doubtful, for overheads are high, business would probably be irregular and many of the potential customers would have difficulty in paying. In the long term, as incomes rise, there will certainly be openings for such ventures. In the meantime, however, there is a danger that a transport business would survive only if it was subsidised in part at least from

[1] Official approval was then necessary for indigenous people to go into debt.

Background experience

463 472 871 Education. Although the most successful group of entrepreneurs had all had considerable education (more than three times the average of the other two groups combined), the least successful group had had more schooling than the middle group. This is shown in the following table in which an index of education was ascribed to each person by multiplying years of schooling by standard reached.

Table 1

Index of education

A	20	E	0	I	56
B	63	F	9	J	30
C	15	G	0	K	45
D	9	H	6	L	56
Average	26.7		3.75		46.7

463 472 484 Travel. There may be a positive correlation between travel experience and trading success. All the entrepreneurs had travelled beyond their own district and, as shown on Table 2, the most successful entrepreneurs had travelled more widely than the least successful.

Table 2

Relationship between travel experience and entrepreneurial success

Travel experience	A	B	C	D	E	F	G	H	I	J	K	L
Northern and adjacent districts (Morobe and Milne Bay)	'	'	'	'	'	'	'	'	'	'	'	'
More distant districts	'			'			'	'		'	'	'
Australia												'

463 472 464 Paid work. The number of years spent in paid employment correlates negatively with the entrepreneurial success of the sample, as under:

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at
a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built
houses on their own blocks on either side of the access road. In
addition, they have built a 'meeting house' in which passers-by
can sit and chat, and a latrine. One is the son of the other's
mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one of the old men at Ombi was destroying his taro by practising sorcery, and moved to his block, ten minutes' walk from the village, to protect it.

[592] Apart from this last man those who have moved to the blocks are living in small kinship groups rather than as individual farmers
[484] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our stay, particularly while gambling during the weekends. One brought his family to Ombi after his wife had a baby and stayed for a few days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

245 By a fortuitous circumstance, the land selec-
423 ted was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
[726] out in inter-parish warfare it had never been
re-allocated among the remaining clans. No-
body, therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
654 and over the next two years cut down a large
657 area of forest and planted shade trees and
young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
245 village, many decided to move inland; this
[484] was a rational decision. An additional incen-
[443] tive was the development of the weekly market
at Popondetta. With the rapid growth of the
town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
443 Yega have taken advantage of this to sell sur-
438 plus produce for cash. Residence in the inland
settlements reduces the distance from the mar-
ket. By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
178 the breakdown of traditional clan groupings
614 continued. The inland settlements are all
numerically smaller than Beporo and in all of
them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grass-
361 land. Six of the occupants had been allocated
423 cocoa blocks in the near vicinity and four of
these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradi-
tion of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.
[P. 15-B]

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
731 camp were made between the government and the Ilimo people; the
Orokaiva had no forms of organisation, in 1951, through which the
[657] refugees could have negotiated directly with Ilimo. The hosts generously supplied food, grew extra food in special plots, provided abundant building material from their land, and a site for the camp and helped with the preparation of the camp while the evacuees still lived at Wairopa, in return for which the government made various gifts which Ilimo evidently regarded as adequate payment. At no point, during the existence of the camp, did the refugees develop an organisation which dealt directly with the Ilimo people. Thus, the only contact between hosts and guests was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact between different "tribal" groups (or distant groups) of Orokaiva has become more intensive since the eruption, we cannot confine ourselves to contacts occurring in villages such as Sivepe or Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new organisations (to which I shall refer later) through labour migration and through urban development.

464 As I am at present discussing only unorganised contacts
166 between villagers, I can give only one clear instance of changing
633 attitudes and this is in Popondetta itself. Popondetta, the new administrative centre of the Northern District, has about 4,000
[162] inhabitants, almost all Orokaiva; among its inhabitants all parts of the Northern District are represented, including Sivepe. The Sivepe people had many relatives there, mostly hailing from the Sasembata district, and employed in some regular job in the town. These jobs are partly in personal service to Europeans, but also in light industry, the retail trade, public works and public service, and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
521 various villages can gather informally to discuss political and other
633 public questions, and develop a wider interpretation of the situation of the Orokaiva which is learnt by the men from the villages when they pay occasional visits to Popondetta. The town generates a new

484 sophistication which is spreading to the villages. This was not
521 yet very evident in Sivepa, though I shall later quote a few
633 examples, but far more so in Hohorita.

All the Orokaiva, including the people of Sivepa, liked to make occasional visits to Popondetta, even though they had little business there. They saw relatives and exchanged news with people they met around town, especially outside the Steamship Co. shop. News filtered down about the mission, the administration, the coffee factory and various current ideologies were communicated. The Inonda men visited more frequently than the Sivepa men; the women visited less frequently than the men.

609 I had little chance to observe relationships between Orokaiva
619 and Papuans and New Guineans from outside the Northern District, except when these served in some official or mission capacity. The only exception was the workers on European-owned plantations. I observed one incident at Hohorita which seemed to me highly significant. The Sangara plantation, which is very close to Hohorita, employs many Chimbu; bad feeling between plantation workers and villagers had been built up over some time, without any specific major issue of conflict. This culminated in a fight on a major scale. The Hohorita councillor went over to the plantation to make peace; the discussion ended with an invitation to the Chimbu to come to a feast at Hohorita. This feast was a success and was followed by a return feast at the plantation. Thus the Chimbu were placed on the same footing as other groups, at one time hostile, with whom feasting relations had been established, e.g., Sivepa and Togahou. Hohorita people whom I interviewed explained to me that when they quarreled with the Chimbu, they did not really know them, but they were friends now.

Section 6: Contacts With Indigenous Office-Bearers

731 Among the victims of the eruption were 143 Papuan administration servants as well as 27 Papuan constabulary, who died at Higaturu along with the 46 European civil servants stationed there. The Mission was somewhat fortunate that Martyrs' School at Sangara was still closed for the holidays; the pupils and some of the staff had not yet returned. Even so only 11 Papuan mission teachers survived, including the present Bishop of the Northern District Diocese, George Amob, the priest at Sasembata, Fr. Albert McLaren, and the now retired mission teacher at Seva, later at Inonda, Moses Kumale.

657 At the time of the eruption, a certain number of new roles
177 had already become firmly established among Papuans: member of the
647 Royal Papuan Constabulary, Village Constable, Mission Teacher, Medical Orderly, Clerk, Labourer. Post-war government policy aimed at greatly increasing the number and scope of these roles, both by

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

In this chapter, the study of internal variations will be continued, by a consideration of the human resources available to the villages and their economic productivity. A statistical analysis of the population by age, sex and marital status (see Table 16)[A] shows that the labour force lacks a proportionate number of young men in early adulthood; the number of men in the vigour of life is somewhat smaller, in Sivepa, than the number of women. The reason for this change is that young men leave the village to earn money elsewhere. They often do this before marriage, so that the bachelors' houses tend to be occupied by a much smaller number than formerly; but after they are married they usually do not at once settle down in the village. It is unusual nowadays for a brideprice to be paid in full at the time of the wedding. Usually this payment is delayed; the young husband goes out to work for it and after one or two years he sends back money and it is paid. At the one brideprice payment I observed in Sivepa, the groom was not even present. He was at his job in Port Moresby and the role of groom was taken over by another man from the same lineage--a married man with six children, as it happened, who duly cut the firewood and carried the water required for the entertainment of his affines. Even after the bridewealth is paid, then, the husband continues to work at his job, rarely seeing his wife as travel is expensive and leave infrequently granted.

Because of these infrequent visits, young wives have few children, but they receive regular gifts of money from their husband. Eventually, the husband returns home; it is hard to say just what makes him decide. Before the age of 30 he usually starts to establish a family, and he then stays home continuously, to look after his garden and his coffee. He may occasionally go back to town for a few months to earn money, but judging by the few examples I saw, he is not always successful at finding a job and even if he does so, he takes an early opportunity or uses an early excuse, to return home, carrying home some presents for his family and perhaps a little money. The family does not seem to be too troubled about the loss of earnings that result from his return. Some men manage to find accommodation for their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepa women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

A [See Cat. 116, pp. 221-222--Analyst]

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.
114 The question is an interesting one, but Sivepa does not provide a clinching counter-instance. Mr. Waddell's sample was taken entirely from the Jegase and Timunu clans, while he did not collect data on travelling time from the Seho clan. Now it is the latter clan [488] which owns most of the land around New Sivepa, so that their travelling [923] time is (at least for most families) substantially reduced by the shift. Furthermore, five of the Jegase households (some of which were formerly called Timunu) now have gardens very close to New Sivepa. The main sufferers appear to be two families who migrated from Binduta recently, whose land is mainly close to Binduta, and against whom feeling has been building up over the last few years. Mr. Waddell is right, however, in stressing that the major reason for the shift (as given by informants) was the closeness of the new village to the road and the mission station. As such the basis of the shift was practical and ideological but I believe that overall travelling time was reduced if both Seho and Jegase clans are taken into account. Certainly the new village is very close to the land of most of the Sorovi people who settled in Sivepa in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepa. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of time spent on productive work, but the amount of time devoted to social activities and contacts outside the village declines even more steeply after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

177 It is always the individuals who have travelled who are responsible for innovations either by setting a personal example or by persuading the community.

I have not yet referred to the deepest acculturative influence 657 that was absorbed before the time of the eruption, namely the abolition 177 of inter-village warfare. Pacification had effects in all aspects of culture: the kinship system, economic, religion, politics. It would take a full monograph to trace these manifold effects satisfactorily. The other major change of the early colonisation period, the introduction of steel tools, was the subject of a recent book by Salisbury. I have already pointed out that Waddell does not accept for the Orokaiva Salisbury's thesis that the introduction of steel tools liberated a vast amount of leisure time thus bringing many luxuries within reach of the people. Waddell points out that the time now spent on cash cropping is about equal to the time gained by the use of steel tools.

It is useful, however, to consider more broadly what have been the effects of, not only the technological changes, but also the political and ideological ones. By 1951, the Orokaiva had learned and--in the ward of the 40's--rediscovered the magnitude of white power and the need to respect it. They had also learned how vast were the resources of white power and to what extent some of these resources could suddenly become available to the Orokaiva, as happened during the American army operations. They had seen that congenial relations with white people were possible in certain circumstances, as during the [556] war. The acquisition of wealth and power comparable to that of the white people had become a generally recognised objective. Only the [984] means by which this end could be achieved were still obscure. The Orokaiva therefore began to value highly any opportunity to travel, to observe the white man and his ways and those who had travelled were accepted in the village as persons knowledgeable as to the means of pursuing wealth and power.

Developments since 1951 provided increasing opportunities for [731] gathering this knowledge. The evacuation camps and resettlement villages provided precisely the kind of experience for which the Orokaiva had been searching. If the eruption had occurred two decades earlier, the response to European relief measure would not have been so prompt and cooperative. Somehow the experiences of the 1940's, with the rapid influx of foreign goods, the opening up of employment opportunities after the war, the establishment of numerous village schools had made the Australian rulers appear less threatening and stimulated a desire for further contact which was apparent in Orokaiva reactions to Australian post-eruption policies.